ACAA

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Ash At Work

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ACAA Educational Foundation Announces Scholarship Award Winners

A new chapter in the history of coal ash and education is being written with the selection of five students who are to be the first recipients of scholarship awards from the John H. Faber Scholarship Program, administered by the American Coal Ash Association Educational Foundation. In late August 1997, the ACAA Educational Foundation's Scholarship Committee selected the student proposals that it found to be well conceived and likely to produce a semester-project that will advance each students knowledge of technically sound, commercially competitive and environmentally safe management and use of coal combustion products (CCPs).

The full amount of each award will be $2,500. Students must respond with the required paperwork including the signature of their faculty advisor to receive the initial award of $300. When a project is successfully completed, that student will be given the remaining $2,200 balance of the award. The scholarship is intended for work to be completed during the fall and/or spring semesters of 1997-1998.

Currently, scholarships are being awarded to students enrolled in several areas of study including Business, Civil & Environmental Engineering, Land Resources, Materials Science and Plant & Soil Sciences. The specific topics proposed for study by each of the winning students can be seen on page 3.

CCPs and ABC

Earlier this year, FHWA's use of Coal Fly Ash to produce "high performance concrete" for replacement of bridges and roads was featured on ABC-TV's World News Tonight, hosted by Peter Jennings.

ABC-TV's most recent story on World News Tonight [September 16, 1997] was "Road Maintenance". Once again, the benefits of using fly ash for strong and durable concrete pavements were extolled. ABC noted that potholes and other irregularities in highways cost American drivers $4.8 billion dollars annually in car repairs. This figure is nearly 20% of the total federal transportation budget for 1997!!! ACAA has copies of both of video segments available.

Tyson's Corner

Commentary by: Sam Tyson
ACAA Executive Director

Federal Agency Outreach Program

ACAA's Federal Agency Outreach Program for October 1997 will open with a CCP Workshop on Tuesday, October 14, 1997 at the Old Town Holiday Inn, Alexandria, Virginia. As a follow-up to the workshop, on Wednesday, October 15, ACAA members will have the opportunity to participate in personal visits with officials representing three federal agencies in their District of Columbia offices. The offices scheduled for visits include: the Federal Highway Administration (FHWA) within the U.S. Department of Transportation; the Federal Bureau of Prisons within the U.S. Department of Justice; and the Military Construction Office within the U.S. Army Corps of Engineers.

Proposed budgets for fiscal year 1998 for each of these three federal agencies include funding that is directly related to markets for construction applications such as concrete (paving and structures), flowable fill, stabilized base, structural fill and grouting. Even conservative estimates of the dollar amounts as percentages (10 to 20%) of their overall budgets yield numbers as follows: Roads and Bridges/FHWA, $2.2 billion; Military Housing/ Corps, $140 million; and New Prison Construction/Justice, $72 million.

Other federal agencies having significant portions of their budgets targeted for construction applications of direct interest to producers and marketers of CCPs include: U.S. Department of the Interior/Bureau of Reclamation for Water Control Projects, $77 million; U.S. Environmental Protection Agency for Water Treatment Projects, $315 million; General Services Administration for Courthouses & Other Buildings, $206 million; U.S. Department of Housing & Urban Development, Block Grants to States, $1 billion; U. S. Department of Agriculture, Natural Resources Conservation Service, $1.6 million; and Department of Veterans Affairs for New Hospital Construction, $8.5 million.

With an overall impact of almost $4 billion on construction markets that directly affect the use of CCPs, these federal agency budgets are clearly of vital interest to ACAA's producer- and marketer-members. Federal agency outreach, including the promotional and educational activities associated with creating awareness and knowledge of CCPs, will continue to be one of the critically important activities that ACAA performs on behalf of our members.

ACAA Educational Foundation Announces Scholarship Award Winners (Continued from page 1)

--Mr. Jason Videtti of Chaffee, New York proposed a semester-project, Study of *Fly Ash as a Raw Material for Autoclaved Cellular Concrete*, with faculty advisor, Dr. John F. Oyler, Department of Civil and Environmental Engineering, University of Pittsburgh;

--Ms. Jessica Townsend of Newark, Delaware proposed a semester-project, *Influence of Natural Weathering and Plant Growth on the Form and Biological Availability of Trace Elements in Coal Fly Ash and Fly Ash Amended Soils*, with faculty advisor, Dr. Tom Sims, Department of Plant and Soil Science, College of Agricultural Sciences, University of Delaware;

--Ms. Heather Setliff of Corpus Christi, Texas proposed a semester-project, *Use of Fly Ash in Acid-Resistant Concrete Pipe*, with faculty advisor, Dr. Larry Mills, School of Business, Southern Nazarene University, Bethany, Oklahoma;

--Mr. Howard Hess of State College, Pennsylvania proposed a semester-project, *Use of Electron Beams for Manufacture of Fertilizer from Coal Combustion Flue Gases*, with faculty advisor, Dr. Jan Pels, Fuel Science Department, College of Earth and Mineral Sciences, Pennsylvania State University; and;

--Mr. Joseph Williams of Glenville, West Virginia proposed a semester-project, *Potential New Applications for CCPs in Erosion Management and Recreational Trails*, with faculty advisor, Dr. John Williams, Department of Land Resources, Glenville State College, Glenville, West Virginia.

The ACAA Educational Foundation's John H. Faber Scholarship Program currently is accepting new applications through the end of October 1997 for the fall and spring semesters of the 1998-1999 academic year. Preference will be shown to qualified applications received at the earliest possible date. To apply for research-paper and semester-project scholarships, students must fill out the required scholarship application form and submit it with the appropriate materials to the attention of the ACAA Educational Foundation's Scholarship Committee. Information on scholarship application procedures is available on the Internet through a link from ACAA's web site found at http://www.ACAA-USA.org/.

Students who are judged to have produced outstanding results for either research papers or semester projects, through the spring of 1998, will be invited to publish and present their topics for the Thirteenth International Symposium on Management and Use of Coal Combustion Products, to be held in Orlando, Florida, during January 11-14, 1999. Attendance at the 1999 symposium is expected to exceed 500 with international participation from over 20 countries. Up to ten selected students will be eligible to receive a travel stipend, covering the cost of registration, travel, lodging and meals, to attend the 1999 symposium. Additionally, at the discretion of the ACAA Educational Foundation, one or more students will be selected in 1999 to receive a cash award beyond the scholarship amounts which they already will have received.

Become a part of this rewarding program by encouraging a university student from your state, region or favorite school to apply for a scholarship from the ACAA Educational Foundation. Some 350 university libraries currently have the proceedings volumes from the Twelfth International Symposium on Management and Use of CCPs; and additional copies are available to libraries that need them.

Coal Ash and ISTEA -- Strengthening the Environmental Commitment

ACAA continues to support a provision in Federal transportation legislation, the Intermodal Surface Transportation Efficiency Act (ISTEA), to increase the use of CCPs. A number of ACAA members have taken steps to support and promote such legislation, and the current recommended language for a provision in ISTEA is as follows:

"The procurement and use of coal combustion products (CCPs) shall be maximized in all applications to construct and maintain the transportation infrastructure resulting from and/or supported by this legislation. CCPs are defined as fly ash, bottom ash, boiler slag and flue gas desulfurization materials resulting from the combustion of coal. Typical applications of CCPs include, but are not limited to, their use in concrete, stabilized base and subbase, flowable fill, structural fill, grout and paving as described in U.S. DOT publication, FHWA-SA-94-081. The maximum use of CCPs in each case shall be determined on the basis of sound engineering practice for CCP applications that are technically sound, commercially competitive and environmentally safe."

ACAA has taken steps to assure that a copy of the U.S. DOT publication, FHWA-SA-94-081, Fly Ash Facts for Highway Engineers, is in every Federal office in Washington, DC. Copies also have been sent to every state highway and transportation office throughout the country. In 1995, when the document was first distributed by FHWA, the initial 10,000 copies were gone in a matter of weeks. ACAA financed the publication of another 10,000 copies later that year, and currently only about 2,000 of those copies remain in stock. With a steady demand of about 300 copies per month, another printing likely will be needed in 1998--especially with the additional positive attention created by ACAA's endeavors on behalf of CCPs in ISTEA.

Tell your congressmen about coal ash and ISTEA!

Are you "telling the coal ash story" by contacting your Representatives and Senators to voice your opinion about CCPs and ISTEA? The use of coal ash and other proven recycled materials is a national priority, and fully consistent with guidance in Executive Order 12873 on Federal Acquisition, Recycling and Waste Prevention. This national priority is particularly appropriate in the Nation's transportation infrastructure which is shared by each citizen in every state. By including a provision in ISTEA to increase the use of CCPs, technical and economic needs will be met while strengthening ISTEA's environmental commitment.

If you need more information, contact ACAA and support the CCP industry. Information about CCPs and ISTEA reauthorization can be seen on the Internet through a link from ACAA's web site found at http://www.ACAA-USA.org/. (See Page 5 for more on ISTEA)

Legislative Update on ISTEA

On September 4, Chairman Bud Shuster (R-PA) of the House Transportation & Infrastructure Committee, released a statement about his new bill to reauthorize the federal-aid highway-bridge program, formerly know as ISTEA, but termed by his bill as BESTEA, "Building Efficient Surface Transportation & Equity Act of 1997". It is a three-year bill that Shuster said "reaffirms our government's covenant with the American people to use gas tax revenue for its intended purpose--improvements to our nation's crumbling infrastructure--and not to use the Highway Trust Fund surpluses ... to mask the size of the federal deficit".

The House bill proposed funding as follows: FY 1998, $24.8 billion; FY 1999, $28.5 billion; and FY 2000, $32 billion. By comparison, the current spending level is $21 billion. The total funding in BESTEA for highways, safety, and transit over three years is $103.2 billion. The Washington Post reported on September 10 that House and Senate GOP leaders are very concerned that this bill "would badly rupture the balanced budget agreement between Congress and the Clinton administration". On the positive side for passage, BESTEA takes the transportation trust funds off-budget; it resolves the so-called donor-state issue regarding the percentage of fuel taxes returned to the states by creating a true minimum allocation, higher than the 1991 ISTEA law; and it continues emphasis on the environment--congestion mitigation and air quality--which would take funds from the highway trust fund. Additionally, it increases funding for the Interstate System, and related bridge programs, including reconstruction funding for the Woodrow Wilson Bridge (a crumbling bottleneck only one mile from ACAA's Alexandria offices carrying route I-95 east from Virginia to the District of Columbia and Maryland); and various other special interest projects in major metropolitan areas throughout the USA. This proposed legislation can be seen on the Internet through links found at www.house.gov/transportation.

In a press conference on September 11, 1997, Senator John Chafee (R-RI), Chairman of the Senate Environment & Public Works Committee, announced that he will propose a six-year transportation bill, having spending levels within the budget agreement. In a demonstration of bipartisan support, Chafee was joined at the press conference by Sens. John Warner (R-VA), Max Baucus (D-MT), Bob Smith (R-NH), Dirk Kempthorne (R-ID), and Harry Reid (D-NV). The Senate bill would provide $145 billion dollars over the next six years for the national surface transportation system with emphasis on: protecting the environment; balancing the budget; and enhancing highway and driver safety. Senator Baucus pointed out that the bill: is fair to all regions of the country; streamlines today's complex transportation programs while retaining the integrity of ISTEA; and gives State and local officials greater flexibility to deliver transportation services efficiently. Senator Warner added that within this bill every state shares a growth in dollars compared to the funding levels they received under ISTEA, and that each state would receive a minimum of 90 percent of its contribution to the Highway Trust Fund. This proposed legislation, including a state-by-state tabulation of six-year average funding (1998 to 2003), can be seen on the Internet through links found at www.senate.gov/~epw/.

The reauthorization of ISTEA will be a negotiated compromise between the House and Senate bills that have now been proposed. This probably will not take place by the September 30, 1997 expiration of ISTEA, but likely will be completed by the end of October 1997.

Fourth International Conference on the Biogeochemistry of Trace Elements

ACAA Director of Technical Services Barry Stewart delivered a keynote address, chaired the CCP session, and presented a poster presentation at the Fourth International Conference on the Biogeochemistry of Trace Elements held at the Clark Kerr Campus, of the University of California at Berkely, June 23-26, 1997. There were eight oral presentations and seven poster presentations on CCPs at this international meeting. Attendance was over 400 people from 38 countries and many of the presentors were from outside the U.S. Dr. Stewart's keynote address on CCP Production and Use, and poster titled Examination of Trace Element Content of Leachate from Coal Refuse Blended with Coal Fly Ash, were well attended and received favorable comments. The poster presentation was co-authored by ACAA member Dr. W. Lee Daniels of Virginia Polytechinc Institute and State University. In addition, this forum was used to promote ACAA's 13th International Symposium on the Management and Use of CCPs.

Biogeochemistry has developed into an interdisciplinary science which links phenomena observed in the biosphere to physical and chemical reactions of the lithosphere. Due to advancements in investigative tools in chemistry, physics, engineering, and ecology, as well as advancements in computer modeling and simulation, biogeochemical research concerning the transfer of trace elements in natural and managed ecosystems is entering new era of innovation.

The conference provide a forum for researchers, scientist, and engineers to present their most recent findings and to discuss with colleagues from around the worl the most current and innovative methodology, analytical techniques, and process development.

The conference was sponsored by the U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory, the International Soil Science Society, the Soil Science Society of America, and the Society Environmental Geochemistry and Health. The conference included 24 general sessions, and six special symposia.

The table of contents of the volume of extended abstracts is currently available from ACAA, upon request.

"Hands-on" Products for Display Needed

Recently, ACAA has added new photographs to our display. The new photographs are part of the new Coal Combustion Product Book and offer staff a wide selection of CCP applications to display at events.

The next area that is to be developed is the "hands on" materials that are carried with the exhibit. If you have any product samples that you think would help ACAA's exhibit, please contact Gregg Deinhart, ACAA's Communications Coordinator.

Churchill Fellow visits ACAA, AEP, NMA, Consol

Mr. Neil Alston a 1997 Churchill Fellow from New South Wales Austalia visited ACAA offices on July 8, 1997 and met with Executive Director Sam Tyson, and Director of Technical Services Barry Stewart. He was given a number of current ACAA publications to bring him up-to-date on the management and use of CCPs in the U.S. While in the Washington D.C. area Mr. Alston also visited the offices of the National Mining Associaiton. Mr. Alston then traveled to Ohio where he visited several AEP facilities, a Consol coal mine, and some mining equipment manufacturers. Prior to visiting the USA Mr. Alston also had visited mining related sites in Germany, Poland and the United Kingdom.

The Churchill Fellowships are available to Australians from all walks of life to investigate study projects which will enhance their usefulness to the Australian community. Mr. Alston's project deals with reconciling urban encroachment in traditional mining districts. Mr. Alston is a mining engineer, working in underground coal mining, and wished to investigate how mines, established up to 100 years, may be mutually compatible with modern urban community attitudes and values. Urban sprawl in the state of New South Wales is progressing into tradtional mining districts creating conflict. There is a lack of appreciation of the benefits of mining to the community, yet mining is the country's largest industry.

Mr. Alston is employed by Powercoal at the Wyee Colliery, an underground coal mine on the Central coast of New South Wales, about sixty-five miles north of Sydney. Wyee operates a longwall to supply 1.8 million tons of coal per year of steam coal to Delta Electricity's Vales Point Power Station which is adjacent to the mine. Delta has a generating capacity of 4240 MW and provides nearly 30% of New South Wales electricity needs.

ASTM Symposium on Flowable Fill

A Symposium on the Design and Application of CLSM (Flowable Fill) was held June 19-20, 1997 at the Adams Mark Hotel in St. Louis MO. This symposium was sponsored by ASTM Committee D18 on Soil and Rock and its subcommittee D18.15 on Stabilization with Admixtures, in cooperation with ASTM Committee A-4 on Iron Castings, ASTM Committee C-9 on Concrete and Concrete Aggregates, and the National Ready Mixed Concrete Association (NRMCA).

The symposium consisted of nine sessions on different aspects of flowable fill. Session topics included, Applications/Case Histories, Ingredients: Fly Ash/Admixtures, Ingredients: Aggregates, Testing, Pipeline Applications, and Properties of CLSM.

This excellent forum on the state of the art in flowable fill was put together by Jenny Hitch (Chair, ASTM D18.15) and Amster Howard a private consultant. Over 30 papers on flowable fill were presented in this two day session. The majority of the flowable fill mixes displayed contained CCPs (mainly fly ash). Many ACAA members contributed to this informative program.

Publication's Success Evidence of Mutual Commitment to Fly Ash Use

The following article appears on pages 36 and 37 of *Smart Partnerships: A Shared Commitment to Improve Technology*, published by the United States Department of Transportation, Federal Highway Administration. Publication Number FHWA-SA-97-054.

Driven by common interests, the FHWA and the American Coal Ash Association (ACAA) have enjoyed a successful partnership for many years, collaborating on seminars and issues of shared concern. Both organizations are dedicated to promoting the use of fly ash, a coal combustion product with numerous engineering applications, including concrete pavement and bridge construction. The partners created Fly Ash Facts for Highway Engineers to encourage the use of fly ash in transportation applications.

The industry's great interest in the publication, combined with the substantial amount of new information on fly ash use accumulated in the previous decade, prompted its updating in 1996. ACAA's industry members updated and produced Fly Ash Facts, contributing their time, expertise, and money. Fly ash experts from the FHWA collaborated on the update and paid for its printing. The popularity of the publication is reflected in the rapidity in which the supply of copies was depleted. Within a year of the update, ACAA reprinted the booklets and continues to distribute copies.

Cooperative efforts between the FHWA and ACAA support the FHWA's goal of promoting the use of fly ash to produce durable concrete, while also advancing the ACAA's move to encourage the use of industry's waste products in construction. Of the 82 million metric tons of fly ash produced annually, 11 percent is used in engineering applications, of which 65 percent is used in the transportation industry.

The collaboration involved in producing the updated Fly Ash Facts is just another example of FHWA and ACAA's shared commitment to the use of fly ash in concrete pavements and structures. With such complementary objectives and resources, the partnering relationship between the FHWA and the ACAA is certain to be a productive one for many more years.

How Many Flies Does it Take to Make Fly Ash?

That question is asked by the narrator of a new interactive CD ROM at the "Museum of Arts and Sciences" in the city of Bettendorf, Iowa. The city recently opened the museum described as a building "made of recycled products that houses recycled products." The museum is designed to help children learn about the many recycled products around them, and in that spirit, the interactive CD ROM is narrated by children.

Inside the museum, carpets are make out of recycled soda bottles and play mats are made out of recycled tires. Outside the museum, the parking lot contains concrete using over 100 tons of fly ash. Muscatine Power and Water's Manager of Environmental Affairs, Don Paukin, added his expertise to the exhibition at the museum on May 17, 1997. Michelle Javornik, the City of Bettendorf's Recycling Coordinator, is hopeful that there will be a permanent display of coal combustion products at the museum in the near future.

For more information about the museum and its future activities, contact Gregg Deinhart, ACAA's Communications Coordinator.

Indiana Forum Hears from ACAA

On August 27, 1997 ACAA's Executive Director, Sam Tyson, was a speaker at a forum in Indianapolis, Indiana on CCPs. His presentation was entitled *CCP Utilization and Disposal in the USA and in Indiana*. The forum was sponsored by producers of CCPs in Indiana through the coordination provided by the Indiana Electric Association (IEA). Included in the meeting were state government representatives from several offices including the Commerce Department, the Department of Natural Resources, the Attorney General's office and the Energy and Environment representative from the Office of the Governor.

In addition to a folder of materials about CCP applications which ACAA distributed at the forum, there were subsequent requests for copies of ACAA's report, State Solid Waste Regulations Governing the Use of Coal Combustion Byproducts (CCBs), and information about ACAA's support for a provision to increase the use of CCPs in Federal Transportation legislation, the Intermodal Surface Transportation Efficiency Act (ISTEA).

The IEA presented this technical briefing to the Indiana state officials to provide assurance that current CCP management practices, particularly beneficial uses and mine disposal, are sound. The potential benefit of this meeting will be the continuation of these sound management practices in lieu of promulgating new and potentially more stringent regulations.

Other speakers at the forum were Ishwar Murarka of the Electric Power Research Institute with a presentation, *Characterization of CCPs and Environmental Impact Potential*, and Richard Gray of GAI Consultants with a presentation, *Indiana Coal Mine Disposal of CCPs*.

Several ACAA members in Indiana report progress in working with the Indiana Department of Transportation and the Indiana Department of Environmental Management, as well as the U.S. Army Corps of Engineers, none of which were at the forum in Indianapolis. However, by continuing to address the barriers to the use of recycled materials, CCP use is increasing. This is primarily a result of working with local contractors and educating them as well as the governmental representatives.

In general, Indiana utilities burn high-sulfur Indiana coal, and their plants are relatively close to the mines. Because of the characteristics of the coal ash produced and the locations of the mines, relative to the plants, mine reclamation projects are typically attractive. Other utilities in the state have a broader scope of coal combustion and consequently of CCPs that are available including bottom ash, boiler slag, high- and low-calcium fly ash (including concrete-quality Class C and Class F), and gypsum as products.

In recent years, ACAA's Sam Tyson has made presentations similar to this one in Indiana to groups of officials in other states including New York, North Carolina, South Carolina and Pennsylvania. Educational meetings of this type exemplify one of the many ways in which ACAA members can utilize association services and maximize their benefits of membership.

1999 Symposium Exhibitor Information

The Thirteenth International Symposium on Management & Use of Coal Combustion Products (CCPs) is still over a year away but Exhibitor Information is already available. ACAA is offering an expanded schedule for the exhibitors and is hopeful that the 1999 symposium will have the largest attendance ever.

The symposium is jointly sponsored by American Coal Ash Association and American Coal Ash Association Educational Foundation and will be held January 10-14, 1999 at Walt Disney's Coronado Springs Resort in Lake Buena Vista, Florida, USA

The fee for exhibit space is US$ 1,400 and this fee includes one registration. All exhibit personnel must be registered for the symposium. The exhibit space fee will include:

Exhibit Floor Space (10' x 10') - with one electrical outlet; two chairs wirth a skirted table and sign and: general maintenance of the booth area. Requests for any audio-visual equipment or additional services for the exhibit area must be arranged independently through the hotel. ACAA has arranged the following activities to be held in the Exhibit Area for the exhibitors and meeting registrants:

Morning and afternoon breaks Monday - Wednesday
Opening Night Reception - Monday Evening
Drawings for prizes throughout the week

EXHIBIT HOURS: The exhibit hall will be open throughout the sessions!

Sunday, January 10, 1999 - Exhibitor set-up hours 4:00 p.m. - Midnight
Monday, January 11, 1999 - Exhibitor set-up hours 8 a.m. - 2 p.m.
Monday, January 11, 1999 - Exhibits open 5:50 p.m. - 9:00 p.m.
(Symposium Opening Reception held in exhibit hall 5:30 p.m. - 7:30 p.m.)
Tuesday, January 12, 1997 - Exhibits open 11 a.m. - 7:00 p.m.
(Symposium opening and General Session is being held 9:00 a.m. - 11 a.m.)
Wednesday, January 13, 1997 - Exhibits open 8:00 a.m. - 6:00 p.m.
(Reception and Banquet held 6:30 p.m. - 10:00 p.m.)
Thursday, January 14, 1997 - Exhibit break-down 8:00 a.m. - 12:00 p.m.

A special symposium wrap-up raffle will be held at the ACAA registration booth, following the Thursday afternoon sessions at 5:15 p.m. Registrants must be present to win. Sponsorship opportunities are available for each day. Contact ACAA's Communications Coordinator, Gregg Deinhart for more information.

1999 ACAA International Symposium Fees - Per Registrant

	Member	Non-Member
1 - 2 registrants	US$ 450	US$ 650
3 - 4 registrants	US$ 425	US$ 625
5 or more registrants	US$ 400	US$ 600
Speakers	US$ 400	US$ 400

Welcome to New ACAA Members!!!

Twenty new members joined ACAA's ranks during 1997, and we have invited them to immediately become involved in all aspects of ACAA's work. Their active participation will allow them to derive the maximum benefits from ACAA membership, and their involvement will make ACAA a better organization both for the benefit of current members and for the CCP industry as a whole.

Clearly, the entire CCP industry benefits from ACAA's programs and activities. Our members are the ones who share knowledge and guidance on a continuing basis for the creation and maintenance of CCP management and use programs that return maximum benefits to their companies. We warmly welcome each new member and ask them to seek every opportunity to take advantage of formal and informal information exchanges, networking opportunities and involvement in the continuing work of ACAA's standing committees and task forces. At the same time, we offer sincere thanks to each new member for their acceptance of responsibility to carry a fair share of the financial commitment needed to assure the continued effectiveness of ACAA's work.

New members added during 1997 are:

Anglo American Metals, Victoria, TX
Atlantic Environmental, St. Louis, MO
Cemtech International Inc., Wheaton, IL
Donald W. Callaway & Associates, LaGrange, TX
Dyna Corporation, Upper Marlboro, MD
East West Trade Group, Inc., McLean, VA
Fremont Department of Utilities, Fremont, NE
Hoosier Energy, Bloomington, IN
Inland Industrial Materials Ltd., Alberta, Canada
LA Ash Inc., Westlake, LA
Lyons Salt Company, Mission, KS
Materials Technology, Ltd., Las Vegas, NV
National Mine Land Reclamation Center, Morgantown, WV
Orange & Rockland Utilities, Pearl River, NY
Premier Ash, Dublin, OH
Progress Materials, Inc., St. Petersburg, FL
R.J. Collins Associates, Springfield, PA
Schweitzer Construction Co., Cincinnati. OH
Scotts Lawn, Marysville, OH
Sierra Pacific Power Company, Reno, NV

In addition to these new members, four new international memberships, which were provisionally approved by ACAA's Executive Committee in 1996, were confirmed in 1997 through the signing of a memorandum of understanding between ACAA and each of the following organizations:

Center for Coal Utilization, Tokyo, Japan
China Fly Ash Utilization Technology Center, Shanghai, China
Coal Ash Institute of India, Calcutta, India
Finnish Industries Energy Federation, Helsinki, Finland

We regret that several members are no longer with us in 1997, but overall our membership now stands at 109, an all-time high number. Also in 1997, for the fourth consecutive year, dues revenues are the highest ever, and an increasing percentage of the total budget comes from non-dues sources. As ACAA looks to the 21st century with a goal of recruiting and retaining members through the use of an enhanced dues structure, while maintaining quality programs to return maximum benefits to loyal members, the time is right to be a member of ACAA.

Progress on Basel

In May 1997, we reported on the Basel Convention, a global environmental treaty that strictly regulates the transboundary movement of hazardous wastes. In principle, the controls established by the Basel Convention do not apply to non-hazardous coal ash--and certainly not to coal ash destined for use.

ACAA convened a task force earlier in 1997 to review and make recommendations concerning the Basel Convention. The task force members now include: John Flynn of Ontario Hydro, chair; Fred Gustin of National Minerals/LaFarge; Andy Stewart of Cooperative Power; Frank Theodore of Consol; Neil Wallace of Wallace Industries; and Tracy Wandell of Sphere Services.

ACAA staff has coordinated with other industry groups--including the National Mining Association (NMA) and the Business Recycling Coalition (BRC), an industry business group within the U.S. Chamber of Commerce that has been representing U.S. business interests on other topics to the Basel Technical Working Group.

ACAA would seek relief for members of the coal ash industry worldwide from the potentially damaging effects of the Basel Convention.

A meeting of the task force is scheduled for Wednesday, October 15, 1997, in Washington, DC. ACAA members will meet with Moya Phelleps, Vice President of International Trade for NMA and Harvey Alter, Manager of Resources Policy with the U.S. Chamber of Commerce and principal representative of the BRC to the Conference of the Parties for the Basel Convention. Mr. Alter will discuss the current status of activities pertaining to the parties when he meets with ACAA's task force, and he will report as well on the next Basel meeting which he will attend during week of October 5, 1997 in Borneo.

New ACAA Officers Elected

ACAA's Board of Directors elected new officers for the two-year period, January 1998-2000, at its regular mid-year meeting which was held this year in Minneapolis, Minnesota. The new officers are: John Kuloszewski, Chairman; Bill Fletcher, Vice Chairman; and Ted Frady, Secretary/Treasurer. They will assume their duties at the winter 1998 meeting of the Board.

The election of new officers takes place every two years at the mid-year meeting preceding the expiration of the term of ACAA's current officers in accordance with ACAA's bylaws. The association has been fortunate to have the dedicated and professional services of its current officers: Andy Stewart, Chairman; Ted Frady, Vice Chairman; and Mike Schroeder, Secretary/Treasurer. These individuals will serve the remainder of their term while providing valuable guidance and support to the officers-elect to provide for a seamless transfer of duties.

ACAA's Strategic Plan -- 1997-2000

ACAA's ranks increased to 109 during 1997, and that trend will likely continue as current and new members work together to maximize the benefits of membership described in our soon-to-be-released Strategic Plan [1997-2002]. The benefits described in that document under four general headings are: Unified Industry Voice; Information Exchange and Networking; Educational Opportunities and Professional Growth; and Market Awareness and Development. ACAA staff uses the strategic plan to inform prospective members about ACAA's goals and the benefits of membership. Members may request additional copies of the strategic plan as needed.

New Staff Member

ACAA's new Financial Analyst is Gibson W. Smith. Gibson has Master of Business Administration and Bachelor of Science in Management degrees, both from Tulane University in New Orleans, Louisiana. He has four years of experience as a financial manager for small organizations including an architectural firm, a retail shipping and packaging business, and most recently, a health maintenance organization. From 1994 until 1996, Gibson was a Peace Corps volunteer in Buzau, Romania where he worked as a financial advisor at a business consulting center, assisting emerging entrepreneurs with business plans and conducting seminars on business fundamentals. Gibson joined ACAA in late August 1997 to take over financial duties from Kevin Clouse who left ACAA later that same month to resume employment with the Federal Government. Kevin had left his position at the agency two years ago to earn an advanced degree in economics and subsequently had been with ACAA since February 1997.

Mining and the American Economy

The National Mining Association (NMA) recently released a series of five reports on the economic impacts of mining on the U.S. economy. ACAA's Sam Tyson attended a meeting at NMA's headquarters in Washington, DC on July 16, 1997, where these reports were reviewed just prior to their release by their author, George F. Leaming, Ph.D., of the Western Economic Analysis Center. The first report in the series is a summary report entitled *Mining and the American Economy--Everything Begins with Mining.* This summary report presents an overview of four mining industry segments (coal; metals; industrial minerals; and construction minerals) followed by a description of the total direct and indirect economic impacts of these industries.

For example, the economic impact (revenue to U.S. businesses; wages and salaries; state and local taxes; federal taxes; and employment) of these mining industry segments in 1995 was a total of $48.4 billion in direct impacts and a total of $523.6 billion in combined direct and indirect impacts. In addition to the summary report mentioned above, individual reports are available on each of the four industry segments.

These reports are available from NMA at no charge to its members and to State and Federal Government agencies. The charge to others is $30 per volume or $150 for the complete set of five volumes. Requests should be directed to NMA, Policy Department, fax: 202-833-9636; and phone: 202-463-2638.

Career Opportunities Sought -- ACAA Initiates Job Forum

During the last several years, and particularly in 1997, individuals seeking to move from one area of CCP management and use to another have contacted ACAA for assistance. Typically, such individuals have worked for either electric utility or marketing companies and feel that their experience could lead to more rapid growth in another environment. At this time, ACAA has confidential information from four such individuals, each of whom is currently employed full-time, with work experience ranging from four to fourteen years.

If your company is seeking an employee with experience in CCP management and use and would care to send a confidential inquiry in writing to ACAA specifying your requirements, we will offer your information to the individuals who appear to meet your needs and ask them to respond at their discretion.

Companies and individuals wishing to run specific advertisements in Ash at Work may do so for a fee.

Please see related advertising information in this issue or contact ACAA's Communications Coordinator, Gregg Deinhart, for additional information about advertising rates and layout specifications.

EPA EPP CPG Alphabet Soup of Green Federal Purchasing

A conference on Environmentally Preferable Products (EPP) was held in Baltimore, Maryland July 16, 17. The conference was jointly sponsored by the United States Conference of Mayors, the Office of the Federal Environmental Executive, and the Environmental Protection Agency. The conference was attended by many governmental officials involved in EPP. The conference objective was to increase and maintain a market for environmentally preferable products in the Federal Government.

The conference goal was to assist in making environmental performance a factor in the Federal Government purchasing decisions, along with product performance and cost. Environmentally Preferable Purchasing promotes Federal Government's use of products and services that have reduced impacts on human health and the environment. Such purchases are required by executive order 12873, Federal Acquisition, Recycling and Waste Prevention. The Executive order also directed EPA to develop guidance and assist Federal agencies with incorporating environmental preferability into their purchasing procedures.

Three things were stresses at this conference; The Internet will play an increasing role in doing business with the government; Government publications such as the Commerce Business Daily are available on-line before the print addition is issued and; The government will also rely heavily on the Internet for purchases from GSA stock supplies. The government is changing the way it purchases things. More and more government managers are being empowered with purchasing power. Much of this is being accomplished by using government issued VISA cards some of which will have purchasing limits up to $100,000. This means more and more government managers will have to be educated about purchasing environmentally sound products. Life Cycle Assessment (LCA) is one tool which will be used to help make purchasing decisions. The topic of LCA was mentioned many times in discussions and presentations at this conference.

This conference was attended by ACAA's Sam Tyson and Barry Stewart, who were able to distribute ACAA literature on CCP use to many interested parties.

Wascon '97

Wascon '97, the International Conference on the Environmental and Technical Implications of Construction with Alternative Materials was attended by ACAA's Barry Stewart, June 4 - 6, 1997. The conference was held at Chatteau St. Gerlach, in Houthem, The Netherlands. The theme of this meeting was "Putting Theory into Practice". The meeting had over 230 attendees, mainly from Europe.

The meeting had over 100 presentations presented in 26 sessions. The sessions were grouped into "workshops" on various topics. Workshop topics included: Harmonizing of Leaching Test Procedures, Construction Raw Materials from Coal-Fired Power Stations, Concrete Applications, Modeling of Leaching, Laboratory and Field Relations, Reuse as Raw Materials, Soil Leaching, Immobilization, Policy and Economy, and MSWI-Byproducts. The table of contents from this meeting is available from ACAA upon request.

ACAA to Participate in FWHA, University of New Hampshire Project

As a result of ACAA's participation in the Midwest Concrete Consortium (MC2) and ACAA's Director of Technical Services, Barry Stewart's participation in Wascon '97, Dr. Stewart has has been invited to participate in an Expert Technical Group (ETG) of an FHWA project to be conducted by the Environmental Research Group at the University of New Hampshire.

The meeting will be September 24 and 25 and the project's goal is to develop a consensus framework for the evaluation of "waste utilization applications in highway construction projects".

The University of New Hampshire's Waste Utilization Institute, along with Chesner Engineering P.C. and other Institute consortium members serving as technical advisors, is working with the Federal Highway Administration (FHWA) under a Cooperative Agreement to develop a consensus framework for decision makers to evaluate waste utilization applications in the construction of highway infrastructure. The framework will be embodied in a guidance document which will be published and will eventually be available via the Internet.

The principal end user of this framework would be State Department of Transportation Officials who are presently faced with increasing numbers of applications for waste utilization in highway construction that require technical evaluation and approval. Logically, State Environmental Officials will also use this framework and document as they are also involved in beneficial use determinations (BUDs). Cognizant Federal agencies (e.g. FHWA, U.S. EPA, U.S. DOE, U.S. DOD), regional agencies, municipalities, waste generators, and pavement contractors would also be users of the guidance document produced under the Agreement.

This project follows several nearly completed projects on waste utilization in highway construction by FHWA. The completed evaluation scheme will be a valuable tool to accompany the soon to be published FHWA guide to using recovered materials in highway construction.

Other organizations invited to participate in the ETG include EPA, American Concrete Paving Association, National Asphalt Paving Association, and Asphalt Recycling and Reclaiming Association.

CCP Production and Use Survey Completed in Record Time

ACAA's survey of CCP production and use was completed in record time this year due to the timely response of the CCP industry. This effort will facilitate the publication of a chapter devoted to CCPs in the upcoming Minerals Yearbook published by the United States Geologic Survey (USGS). The chapter will also be posted on the USGS Internet site later in 1997.

In calendar year 1996, both production and use of CCPs increased compared to the previous year. Production exceeded 100 million tons for the first time. The production increase was due to an increase in coal burned by the utility industry. Use of CCPs also increased. This increase may be attributed in large part to the continued work of ACAA, and its members, to promote the use of CCPs in ways that are technically sound, commercially competitive and environmentally safe, and to expanding opportunities in the construction markets.

UWM Center for By-Product Utilization Sponsors Workshops on CCP Use in Concrete

The University of Wisconsin Milwaukee, Center for By-Product Utilization and the Illinois Clean Coal Institute are sponsoring a one day workshop on coal ash reuse/recycling. The workshop entitled *Workshop and Construction Demonstration for Use of Fly Ash and Other Coal Combustion By-Products in Concrete* will be held September 16, 1997 at the Holiday Inn in Peoria, Illinois. The American Coal Ash Association; Best Block Company; Central Illinois Light Company, City of Peoria, Department of Public Works; City Water and Power; Howard and Howard Attorneys, P.C.; Illinois Power Company; United Ready-Mix, Inc.; and Wisconsin Electric Power Company will co-sponsor this event.

The program will include presentations showing important technical and economic advantages of using coal ash in ordinary, everyday construction applications, including ready mixed concrete, precast concrete, flowable fill, highway construction, etc. The purpose of the workshop is to bring the attendees up-to-date with the latest information on utilization of fly ash and other CCPs. Also, a Workshop on Utilization of Fly Ash and other Coal Combustion By-Products in Concrete and other Construction Materials will be held at the Milwaukee River Hilton Inn on December 9, 1997. This workshop will cover similar material and will include speakers from ACAA, Wisconsin Electric Power Company, National Minerals/Lafarge, and the Wisconsin Concrete Paving Association. If you have questions regarding either of these workshops please contact Tarun Naik, Ph. D. (414) 229-4105 or tarun@csd.uwm.edu.

Reach ACAA Members at Meetings

Potential sponsors for Exhibits, Lunches and Breaks during ACAA's committee meetings and workshops are invited to contact ACAA staff at any time prior to these meetings. A fee of $500 for breaks; $1,000 for exhibit space; and $1,500 for lunches will provide an opportunity for sponsors to reach a significant audience of CCP industry members at one time during a very busy meeting schedule to deliver literature and contact information. A list of ACAA's scheduled meetings appears in this newsletter.

Member News - Member News - Member News

Boral Industries Inc. Announces Acquisition of Monex

News from: Boral Material Technologies Inc.

Boral Industries, Inc. announced the acquisition of Monex Resources, Inc. (Monex) effective July 30, 1997. Monex and Boral's Western Ash subsidiary intend to merge under the name of Boral Material Technologies Inc., making it the leading coal combustion products manager and marketer in the United States with annual sales exceeding $BO million. The merger generates the marketing territories of Boral Material Technologies Inc. to include the Northwest, Pacific, Rocky Mountain, Southwest, Southeastern and Mid-Atlantic United States.

The new subsidiary will provide admixtures, fly ash and fiber product lines to the concrete industry and a wide range of services to the utility industry, The transaction strategically positions Boral as a leader in the construction materials industry.

Boral Material Technologies Inc. will operate at 38 electric generating stations and will market over three million tons of coal combustion products including fly ash, bottom ash, FGD gypsum and road base products. Boral Material Technologies Inc. will provide a wide range of concrete admixtures including water reducers, retarders, accelerators, air entraining agents and superplastcizers to the expanded market area.

Tim Tuff, President of Boral Industries, Inc., said: "I am confident that Boral Material Technologies under the leadership of Gerry Gordon, the current President of Monex, will find ways to capitalize on the individual strengths of these two market leaders and build a team that will take our leadership position to the next level."

Boral Material Technologies Inc. will be based in San Antonio, Texas with offices in Phoenix, Ariz., Denver, Co., Fontana, Cal, Atlanta, Ga., Auburndale, Fla., and Greensboro, NC. The organization has over 300 employees.

Member News - Member News - Member News

Reuse Right on Target

News from: Reuse Technology

The construction of the Richmond-Midlothian Target store is proceeding on schedule in spite of poor construction conditions. This site had conditions that were as bad as sites get and to compound matters area rainfall had been higher than normal in the previous twelve months. The approximately 25 acre site had a seasonal high water table and a wet silty clay subsoil. All of which needed to be covered by 180,000 cubic yards of fill. Meeting the requirements for a March 4, 1997 start for building footings would be a formidable task.

The owner and contractor sought a fill material that would allow them to start construction by January 1997. S. W. Rodgers, the site contractor, planned to use fill material from a stone quarry; but this material was tested in early January 1997 and found to have a high water content. The contractor decided to use an R. T. Construction Sciences structural fill product. The product consists of coal fired power plant ash and a cementation binder which have been blended in a pugmill to provide uniformity. The product could be delivered to the site at a moisture content of 10-15%.

The use of the product allowed the construction to take place in January and February, gaining valuable time. Vegetation was stripped from the site, the product was spread in a two to three inch layer and disked into the wet subsoil. Excess moisture was absorbed by the product and the site was then filled with additional loads of product. The material was so effective that only two work days were lost during 15 days of rainfall. The project is planning to apply for Federal Rebate Funds for using recovered materials (fly ash), and producing and additional cost advantage.

Other R.T. Construction Sciences products include a flowable fill from fly ash which can be used to fill abandoned pipelines and structures (this technique is most effective where the of compaction equipment is not possible), and drainage material from coarse bottom ash.

Sludge may Become Concrete Block

News from: Consol/Cinergy

Consol Coal Group, Pittsburgh, is studying the conversion of lime-based flue gas desulfuriza-tion (FGD) sludge into synthetic aggregates for use in highway construction and lightweight concrete-block production. The Ohio Department of Development's Coal Devel-opment Office and the Illi-nois Clean Coal Institute are funding the studies.

Flue gases at high-sulfur coal power plants are sprayed with a slurry com-posed of water and an alka-line reagent, usually lime or limestone. A resulting chem-ical reaction between the flue gas' sulfur dioxide and the reagent produces a wet FGD sludge, which contains calcium sulfite or calcium sulfate and has the consis-tency of toothpaste.

Typi-cally FGD is disposed of in landfills or settlement ponds at a cost as high as $6 per ton of coal burned. Researchers at Consol's development laboratory in Library, Pa. are attempting to convert the sludge into particles that can be used as coarse aggregate. Scientists hope to extend the project into a large-scale demon-stration within a year.

"In the aggregate research project, we're trying to low-er the cost of producing value-added products from the scrubber sludge," says Frank Burke, Consol's vice president for research and development.

"Our challenge will be to achieve a synthetic aggregate with exacting characteristics for density, wear resistance, size, and durability," says Milton Wu, principal investigator. The goal is to meet specifications from ASTM and from the American Society of State Highway and Transportation Officials (AASHTO).

Member News - Member News - Member News

Ash Breaking Ground in South Carolina

News from: South Carolina Electric & Gas Company

South Carolina Electric & Gas Company is working with scientists from the University of Georgia, the South Carolina Department of Health and Environmental Control, and USDA soil conservationists to study and demonstrate the use of coal ash as a soil amendment.

During construction at the Columbia Metropolitan Airport many years ago, topsoil was stripped from an 18-acre field located at the end of the main runway. The field had remained barren and became severely eroded. There was no plant cover to keep the sand and water from washing into the busy road alongside the airport. Not only was the location unsightly, it was also a hazard to drivers and was depositing silt in nearby waterways.

The soil conservationists were contacted by airport officials and asked to help. After reading and hearing about USDA projects which had successfully used coal ash, the local conservationalists contacted SCE&G and began to set up a partnership for the land reclamation project.

SCE&G informed them of a similar SCE&G project at a South Carolina grass sod farm which helped gain approval from the state environmental agency. Work began in April 1995 and approximately 3600 tons of pond ash was disked into the soil. This resulted in approximately 200 tons/acre or about a two (2) inch cover over the 18 acre site. Dikes and water control systems were built to redirect water away from the road. A seed mixture designed to provide both short-term and long-term coverage was spread. Then hay was spread on top and cut into the ground with cultivating disks to help hold the seed in place and keep it from washing away before it could establish roots. The mix created a quick fix with a fast-growing grass establishing a root system and enabling the slower-growing, more sturdy varieties a chance to put down roots and thrive. The ash allowed water to enter the soil and remain. It also allowed for root growth.

Today, the once barren land is a rolling green meadow. At the back of the 18 acre project site, 40 test plots employing different mixtures of coal ash and chicken litter have been planted. These plots will be studied to determine which mixture gives the best stand of plants and to determine the impact of coal ash on groundwater, soil and plant composition. Once this project is successfully completed, coal ash could help dozens of other sites across the state that are plagued by erosion problems.

This project received one of 15 awards given internationally from the international Soil and Water Conservation Society at their annual meeting held in Toronto, Canada.

TxDot Road Project Underway

News from: Boral Material Technologies Inc.

Boral Material Technologies Inc. is currently working on their first project with the Texas Department of Transportation, using a Boral-developed coal combustion product, RoadMix Base. RoadMix Base is an aggregate base material used in road building and fill applications. Blended from a synthetic, angular aggregate and stabilized with self-cementing pelletized fly ash binder for added strength and cohesion, RoadMix is a semi-rigid base material that provides excellent adhesion with asphalt pavement as well as superior structural qualities.

The job site is located five miles south of Stockdale, Texas and will consist of two test sections, each 500 ft. in length. New tests will be done by the Texas Transportation Institute of Texas A&M University to determine the validity of the quality of RoadMix Base. Boral Material Technologies Inc. hopes the successful testing of RoadMix Base will create awareness to site construction and road construction contractors of the potential benefits of using RoadMix Base.

Member News - Member News - Member News

New Uses for Fly Ash

News from: Duke Energy

In North Carolina's "red clay country", the stuff being used to level a shopping center site on Highway 150, just off Interstate 77 in Mooresville, is generating a lot of conversation.

And Duke Energy Corporation couldn't be any happier. The company's coal ash group - the Duke Ash Masters - is rewriting the definition of "dirt cheap" at the 22-acre site, where B.V. Belk Investments is developing a 200,000-square-foot-plus shopping center. Instead of the traditional fill dirt, Belk's Tom Scott elected to use CCPs from Duke's coal-burning steam generation plants.

"The material itself compacts tighter than red dirt (clay soil), and it's a good alternative to bringing in red dirt and having to pay the extreme cost of finding the material and trucking it in," he said. "We had a site with a 40-to 50-foot drop from Highway 150 on some portions that could have cost us $2.5 million to fix, and I can say we are getting it for less than half that."

Duke's coal ash group is handling everything, including hauling more than 350,000 tons of moist ash from the nearby Marshall Steam Station on Lake Norman, clearing the site, compacting, replacing cover soil, grading and seeding.

"The haul distance is the key," said Larry Harper, manager of Duke's coal ash group. "I can be fairly competitive within about five miles of a plant."
He has targeted Mooresville because it's experiencing a development boom within the shadow of the Marshall Plant, which accounts for about 450,000 tons of the 1.5 million tons of fly ash and bottom ash the Duke system produces annually.

Fly ash is the fine, powdery stuff that's captured in the smokestacks. Bottom ash is the granular material that collects in the furnace bottom. The commercial and industrial fill material is a mixture of both types. Harper said Duke began selling engineered fill about four years ago as part of the company's program to find beneficial uses for CCPs. Ash also is used, among other things, in ready mix concrete, for traffic control on slippery roads, as grit for sandblasting and as bedding for railroad construction.
The coal ash group is within about 100,000 tons of its 1997 goal of 900,000 tons, Harper said. Overall, the group has sold about 2.1 million tons of coal ash fill, enough to cover a football field to a height of 100 feet.

Harper, who's constantly searching for new customers, said he wants "to increase the amount of revenue received to cover all our costs. But generating a profit would be even better."

Duke can store coal ash and, in fact, is building a 40,000-ton domed storage facility at its Belews Creek Steam Station, northeast of Charlotte on Belews Lake, where Forsyth, Guilford and Rockingham counties join. But Harper said the company prefers to sell rather than store long term, because it returns immediate benefits the community as well as Duke shareholders by stimulating economic activity and possibly generating more jobs and tax revenue. Scott, at B.V. Belk Investments, believes that's exactly what will happen in Mooresville, where the shopping center site work is due to be completed this fall.

"We have some good-sized clients talking to us because of what's already happened there," he said. "You can see what the site is going to look like. We didn't have any users before, because they couldn't visualize what the site would look like when it was completed.

Member News - Member News - Member News

New Business Attracted to TVA for Ash Use

News from: Tennessee Valley Authority

An announcement last month that two companies will build plants adjacent to the Cumberland, (Tennessee) Fossil Plant represents much more than your standard "win-win" situation. It's more a case of "win-win-win-win," says Cumberland Plant Manager, Gary McDonald. "TVA will benefit, the companies will benefit, and the environment will benefit," he says. "And the economies of Houston and Stewart counties will benefit from having the largest drywall plant in the world here and from more businesses that are expected to open and support it."

The secret to all of this success is high-quality synthetic gypsum, something Cumberland produces a lot of and doesn't need, but something the two companies — Texas-based Temple-Inland Forest Products Corp. and Florida-based Synthetic Materials Co.— and others want.

"In 1994, we began using scrubbers designed to remove 95 percent of sulfur dioxide from the flue gas emitted from our smoke stacks, says Ron Haynes, Production Manager at Cumberland. "In the scrubbers, the flue gas — which has already had fly ash removed in our electrostatic precipitatotrs — is sprayed with a scrubber slurry that absorbs SO_2. The acidic, SO_2 laden liquid is neutralized with a pulverized-limestone slurry, forming calcium sulfate. A heavy blast of air then oxidizes the material to form calcium sulfate —more commonly known as "gypsum".

More than a million tons annually of the such like synthetic gypsum is pumped out to onsite containment areas that kept getting bigger and bigger until about a year ago. "That was when we began selling a small amount of gypsum to Synthetic Materials," Haynes says. "SYNMAT was delivering it to Temple—Inland's plant in West Memphis, Ark. — which makes gypsum wallboard. SYNMAT also was selling the gypsum to others for cement additives and for use in loosening soil for agricultural purposes."

That was a good deal for everyone. TVA was making money by selling waste and was saving money by not having to find places to store it. Temple—Inland didn't have to have as much gypsum mined and shipped from out West.

But Haynes, Gary MacDonald and Cheri Miller were looking for an even better deal. MacDonald is Acting Manager of Fuel Operations and Manager of Fuel Handing, By-Products & Properties in Chattanooga. Miller is an Environmental Engineer on MacDonald's staff.

"Working with Economic Development, the Customer Group and the Office of the General Counsel, we arranged three contracts in which Temple—Inland and SYNMAT will build plants here," Haynes says.

Cumberland will pump its gypsum to the new SYNMAT plant for processing. SYNMAT will provide at least 50 percent of the gypsum to Temple—Inland and sell the rest. The wallboard plant will be built on 124 acres bought from TVA and will employ about 125 workers. Another 20 workers will he needed at the SYNMAT plant, to be built on about five acres provided by TVA through an easement.

"I'm proud of the people at our plant and the fuels and legal groups and everyone else in TVA that made this possible, Moody says of the teanmwork.

"Because our precipitators are extremely efficient in removing fly ash, we recognized early on that the synthetic gypsum we produce is the highest-quality in the United States. That helped us attract these companies."

Member News - Member News - Member News

East Tennnessee Buisness Forum a Success

News from: Sphere Services

Sphere Services, Inc. recently relocated it's coporate offices to Oak Ridge, Tenneesee where it has develped an association with Innovatice Ventures Corporation (IVC), a subsiduary of Lockheed Martin. Sphere Services' move will provide it with the resources it needs to continue to grow and expand the use of CCPs in numerous filler applications.

IVC recently sponsored the "East Tennessee Business Opportunities Forum", in Oak Ridge on July 10, 1997. The goal of the forum was to match entrepreneurs with venture capital sources, professional business managers, technology experts and others. IVC's David G. Beall said the forum "Should be regarded as a must-come event by those with ideas, by people who invest in early-stage businesses, by entrepreneurs interested in launching or expanding technology-based companies, by business people in Tennessee interested in economic growth and develpment, and by people who have facilities that could be used for general offices, laboratories and manufacture of products." Tracy Wandell was one of the six speakers selected to address the forum and present information about specific a specific technology and its potential for commercialization and return on investment.

ACAA's Executive Director Sam Tyson attended the forum and the related exhibits and spoke to news reporters in attendance who wanted to know more about the availability and use of CCPs. Sphere Services is a marketing member of ACAA.

Member Active in Washington, DC Stadium Construction

News from: Dyna Corporation

The recently completed Jack Kent Cooke Stadium in suburban Washington D.C., Ravens' Stadium now under construction in Baltimore, the Federal Triangle Building in Washington, and the IRS National Headquarters Office Building are but a few examples of concrete-rich structures which have been delivered by Dyna Corporation of Upper Marlboro, Maryland.

On these large projects and others, Dyna Corp has used mobile production units to delivery quality materials on time and on budget. These mobile units and the use of CCPs have given Dyna Corp. advantages in bidding large jobs throughout the eastern U.S.

Dyna is Greek for "powerful and energetic" and that fits the companies operations and its owner. Dyna Corporation President and CEO, Diana Havenner Bowling has more than 20 years of experience in the concrete industry. Havenner Bowling realized the technical, economic and environmental advantages of using CCPs long ago and has worked aggressively to market quality concrete mixes that contain CCPs. Dyna Corp. recently joined ACAA because their strong commitment to CCPs.

In addition to over 400 proven concrete mix designs, Dyna Corp also produces a flowable fill product from CCPs that is becoming widely used in the D.C. area, and CCP derived flexible pavement materials.

Coal Ash and Coal Combustion Products (CCPs) - Innovation for a Sustainable Future

ACAA's **Coal Ash and Coal Combustion Products (CCPs) - Innovation for a Sustainable Future** tells the story of CCBs using a wide range of full-color photographs and informative text. This "coffee table" book is currently in production and will be published by October 1997. **Coal Ash and Coal Combustion Products (CCPs) - Innovation for a Sustainable Future** is available for $35 for ACAA members and $75 for non-members. Fill out the enclosed form and order today! For more information on this limited edition book, contact ACAA staff.

(CCPs) - Innovation for a Sustainable Future Order Form

Name_____ Title_____

Organization_____

Address_____

City_____ State_____ Zip_____ Country_____

Phone_____ Fax_____ E-mail_____

Member price $35/book: ____ Non-member Price $75/book: _____

Qty._____ **Total**_____

☐ Check enclosed ☐ Charge to VISA ☐ Charge to MasterCard

Charge to Account #_____ Expiration Date_____

Name of Cardholder_____ Signature _____

Return completed form to:
American Coal Ash Association
2760 Eisenhower Avenue, Suite 304
Alexandria, VA 22134-4553 USA
Phone: 703-317-2400 Fax: 703-317-2409
Internet: http://www.ACAA-USA.org
E-mail: ACAA-USA@msn.com

EXHIBITOR INFORMATION

Thirteenth International Symposium on Management & Use of Coal Combustion Products (CCPs)

American Coal Ash Association and
American Coal Ash Association Educational Foundation

January 10-14, 1999

Walt Disney's Coronado Springs Resort
Lake Buena Vista, Florida, USA

FEE FOR EXHIBIT SPACE: The fee is US$ 1,400 and this fee includes one registration. All exhibit personnel must be registered for the symposium. The exhibit space fee will include:

- Exhibit Floor Space (10' x 10') - with one electrical outlet
- Chairs (2) - skirted table and sign
- General Maintenance

Requests for any audio-visual equipment or additional services for the exhibit area must be arranged independently through the hotel. ACAA will arrange the following activities to be held in the Exhibit Area for the exhibitors and meeting registrants:

- Morning and afternoon breaks Monday - Wednesday
- Opening Night Reception - Monday Evening
- Drawings for prizes throughout the week

EXHIBIT HOURS: The exhibit hall will be open throughout the sessions!

Sunday, January 10, 1999 - **Exhibitor set-up hours 4:00 p.m. - Midnight**

Monday, January 11, 1999 - **Exhibitor set-up hours 8 a.m - 2 p.m**

Monday, January 11, 1999 - **Exhibits open 5:50 p.m. - 9:00 p.m.**
(Symposium Opening Reception held in exhibit hall 5:30 p.m. - 7:30 p.m.)

Tuesday, January 12, 1997 - **Exhibits open 11 a.m - 7:00 p.m.**
(Symposium opening and General Session is being held 9:00 a.m - 11 a.m.)

Wednesday, January 13, 1997 - **Exhibits open 8:00 a.m - 6:00 p.m.**
(Reception and Banquet held 6:30 p.m. - 10:00 p.m.)

Thursday, January 14, 1997 - **Exhibit break-down 8:00 a.m - 12:00 p.m.**

A special symposium wrap-up raffle will be held at the ACAA registration booth, following the Thursday afternoon sessions at 5:15 p.m. Winners must be present.

Sponsorship opportunities are available for each day. Contact ACAA's Communications Coordinator, Gregg Deinhart for more information.

REGISTRATION INFORMATION

EDUCATIONAL PROGRAM FOR MANAGERS
OF COAL COMBUSTION PRODUCTS (CCPs)
June 8-12, 1998
National Research Center for Coal & Energy, West Virginia University,
Morgantown, West Virginia

AN EDUCATIONAL PROGRAM PRESENTED THROUGH THE COOPERATIVE EFFORTS OF
American Coal Ash Association Alexandria, VA
American Coal Ash Association Educational Foundation Alexandria, VA
National Research Center for Coal & Energy - Morgantown, WV

Name (#1) _____

Title _____

Name (#2) _____

Title _____

O Please check here and attach a written description if special assistance is needed to fully participate.

Registration Fee Schedule--	ACAA Members	Non-Members
Standard Fee	$895.00	$1195.00
Early Fee (before May 1, 1998)	$795.00	$1095.00

A discount of 10% is available for multiple registrants from a single company.

O Total registration fee amount is: $_____

O Check enclosed O Charge to VISA O Charge to MasterCard

Charge to Account # _____ Expiration Date_____

Name of Cardholder _____

Four Easy Ways to Register
By Phone: 703-317-2400
By Fax: 703-317-2409
By Mail: American Coal Ash Association
2760 Eisenhower Avenue, Suite 304
Alexandria, VA 22314-4553 USA
By Internet: http://www.ACAA-USA.org

CALL FOR ABSTRACTS

Thirteenth International Symposium on Management & Use of Coal Combustion Products (CCPs)

American Coal Ash Association and
American Coal Ash Association Educational Foundation

January 10-14, 1999

Walt Disney's Coronado Springs Resort
Lake Buena Vista, Florida, USA

In order for ACAA to publish papers for the symposium, strict abstract and paper deadlines must be met. Please note the following schedule:

Abstracts Due to ACAA: March 15, 1997

Abstracts Returned to Authors: April 1, 1997

Full Papers Due to ACAA for Review: July 31, 1997

Final Papers for Publication Due: September 15, 1997

Please return this form to ACAA:

Name_____ Title_____

Organization_____

Address_____

City_____ State_____ Zip_____ Country_____

Phone_____ Fax_____ E-mail_____

Title of Paper_____

Please send me information about:

☐ Hotel Information ☐ Exhibitor Information ☐ Other Sympsium Events

Please information about the sympsium to:

Name_____ Title_____

Organization_____

Address_____

City_____ State_____ Zip_____ Country_____

Phone_____ Fax_____ E-mail_____

ACAA's Executive Director Sam Tyson meets with; (from left to right) Ted Ferragut, American Concrete Pavement Association; Bill Kelleher, National Stone Association; Senator John Warner, R-Virginia; and Julie Luther, National Ready Mixed Concrete Association.

Disney's New Conference Resort Chosen for 1999 Symposium

ACAA's 13th International Symposium will be held at Disney's Coronado Springs Resort Hotel in Orlando Florida, January 11-14, 1999. The Coronado Springs Resort is still under construction and will open for business this summer. The hotel combines the state-of-the-art meeting facilities needed to hold ACAA's symposium with the quality, comfort and convenience of an official Disney property. More information will follow as it becomes available.

A task force is now developing a comprehensive plan and budget for the 1999 symposium. The target date for a report with recommendations is July 1997. The task force is chaired by Mike Schroeder of Cinergy and includes: Howard Humphrey of American Electric Power; Andy Stewart of Cooperative Power; Tom Blackstock of ReUse Technology; Larry Harper of Duke Power; Tracy Wandell of Sphere Services; Ray Forker of Central Illinois Light Company; and Fred Gustin of National Minerals/Lafarge.

1997 Committee Meeting Schedule

October 13-15, 1997
Old Town Alexandria Holiday Inn Select
480 King Street
Old Town Alexandria, Virginia 22314
Phone: 703-549-6080
Toll Free: 800-368-5047
Fax: 703-684-6508

1998 Meeting Schedule

February 1998
ACAA's Committee Meetings and Workshop -
Las Vegas, Nevada
DETAILS TO FOLLOW

June 8-12, 1998
ACAA's Educational Program for
Managers of Coal Combustion Products (CCPs)
National Research Center for Coal & Energy
West Virginia University
Morgantown, West Virginia

June 15-16 1998
ECOBA/ACAA Joint Meeting in Toronto, Canada -
DETAILS TO FOLLOW

1999 Symposium

January 11-14, 1999
Disney's Coronado Springs Resort Hotel
Orlando, Florida

Send Your News to ACAA

ACAA is in the process of gathering information for the next issue of Ash at Work and we need your help. If your company has any ash-related project news that you would like to see in print, send it to ACAA.

Complete stories or story ideas can be sent to ACAA via E-mail, fax or mail. If you have the story in electronic format, send the story on disc in a Microsoft Word or WordPerfect format.

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